# FLORENCE COPPER

#### FLORENCE COPPER INC.

1575 W. Hunt Highway, Florence, Arizona 85132 USA

florencecopper.com

February 15, 2019

Mr. David Albright
U.S. Environmental Protection Agency, Region 9
Drinking Water Protection Services, WTR-3-2
75 Hawthorne Street
San Francisco, California 94105-3901

Re:

Mechanical Integrity Demonstrations, PTF Recovery Wells R-07 and R-08 Production Test Facility, UIC Permit No. R9UIC-AZ3-FY11-1

Florence Copper, Florence Arizona

Dear Mr. Albright:

Florence Copper Inc. (Florence Copper) has completed temperature decay logs (temperature logs) at the Production Test Facility (PTF) Recovery wells R-07 and R-08 in support of Part II Mechanical Integrity Demonstration. The tests were completed in accordance with Part II.E.3(a)(ii)(b) and Appendix D of the Underground Injection Control Permit No. R9UIC-AZ3-FY11-1; Conditional Authorization to Commence Injection for the PTF letter dated December 14, 2018; and the Approval of Temperature Logging Procedure for the PTF letter dated January 31, 2019 (Approval Letter).

## R-07 Temperature Logging

The Recovery well R-07 was out of service at approximately 09:00 on January 31, 2019. Temperature logs were run on the well at 09:00 and 13:00 on February 1, 2019. The results of R-07 temperature logging are included in Attachment 1.

Prior to conducting the temperature logging at R-07, water levels were collected in the well to ensure the well was at a static condition. A summary of the water levels collected is included in Table 1 below.

Table 1. R-07 Depth to Water Measurements

Date	Time	Depth to Water (feet below top of casing)
2/1/2019	08:10	238.80
2/1/2019	08:20	238.80
2/1/2019	18:05	238.95

## R-08 Temperature Logging

In accordance with the approval letter for testing of R-08, Injection wells I-01 and I-04 remained in service during temperature logging procedure and adjustments were made to other recovery wells to maintain the required hydraulic control within the wellfield while R-07 and R-08 were disabled.

Recovery well R-08 pump was out of service at approximately 09:00 on January 31, 2019. The temperature logs were conducted at 14:05 and 18:05 on February 1, 2019. Results of the temperature logging at R-08 are included



in Attachment 2. The log also includes the results of the temperature logging conducted at R-08 prior to the commencement of operations at the PTF on November 14, 2018 as required in the Approval Letter.

Prior to conducting the temperature logging at R-08 water levels were collected in the well to ensure the well was at a static condition. A summary of the water levels collected is included in Table 2 below.

Table 2. R-08 Depth to Water Measurements

Date	Time	Depth to Water (feet below top of casing)
2/1/2019	09:00	239.51
2/1/2019	12:17	239.49
2/1/2019	13:36	238.05 <sup>1</sup>
2/1/2019	17:43	239.55
2/1/2019	17:51	239.39 <sup>1</sup>

Water level collected with an alternate sounder.

#### Summary

The temperature logging results for Recovery wells R-07 and R-08 show no anomalies that would indicate that there is flow behind the well casing. The temperature logs for each logging event are parallel to each other in the cemented zone and there is little to no differential between the two runs in each logging event.

Please contact me at 520-374-3984 if you require any additional information.

Sincerely,

Florence Copper Inc.

Dan Johnson

Vice President - General Manager

cc: Maribeth Greenslade, ADEQ Nancy Rumrill, USEPA